Abstract of the Disclosure

A method for intracellular delivery of drugs or other agents for diagnosis and therapy of malignancies or immune-mediated or inflammatory conditions. A targeting moiety of a an antibody and the ligand-binding region of a selected cytokine receptor is used. The targeting moiety targets surface antigen on a specific cell population. The targeting moiety is administered to a subject, and then, after a specified interval, therapeutic or diagnostic agents linked to the cognate cytokine then are given. The invention provides rapid, efficient internalization of the cytokine receptor antibody/antigen complexes. Targeting of a high-level cell surface antigen with such bispecific fusion molecules substantially increases the number of cytokine receptors over their low background level.